

The Advanced Test Reactors 40th anniversary celebrated

Elizabeth Sellers

U.S. Department of Energy and Idaho National Laboratory managers, employees and former workers at the Advanced Test Reactor gathered Monday at the laboratorys desert Site to celebrate the contributions of the ATR to safe nuclear energy and advanced medicine.

The ATR — along with its predecessors, the Materials Test Reactor and Engineering Test Reactor (now both decommissioned) — has produced much of the worlds data on the behavior of materials and fuels in the radiation environments inside nuclear

Doug Johnson

DOE-Idaho Manager Elizabeth Sellers expressed appreciation for work completed safely.

ATR Program Manager Doug Johnson was one of the keynote speakers.

power reactors. This information has contributed significantly to the safety of commercial nuclear power plants worldwide and the outstanding performance of the U.S. nuclear Navy.

DOE-Idaho Manager Elizabeth Sellers told employees, The Department of Energy appreciates your dedication, work and attention to detail. You continually focus on inserting safety as well as quality into everything you do.

Among its many features, the ATR is designed as a virtual time machine to study the effects of radiation on reactor materials and fuels. It enables scientists to place materials in the reactor and then expose those materials to high concentrations of neutrons, to duplicate in only weeks or months the years of exposure that such materials would experience in, for example, a commercial reactors radiation environment. This capability enables researchers to understand how materials and fuels will behave over their lifetime in many types of reactors.

The ATRs core design allows many experiments to be conducted simultaneously, with each experiment receiving a different and carefully controlled level of radiation. The ATR has been safely performing these valuable tests since 1967.

Its unique design allows the reactors internal parts to be replaced as needed, typically every 8 to 10 years.

The U.S. nuclear Navy is the ATRs primary customer. Results of tests have allowed the Navy to maintain an outstanding safety record and to extend the at-sea life of nuclear-powered vessels.

For many years, the ATR has supported tests for a number of customers, including the nuclear agencies of other countries and industry. In April, the DOE designated the ATR a National Scientific User Facility. As a Scientific User Facility, the ATR offers unique domestic capabilities for nuclear fuel and reactor materials system development that universities, industry and regulatory agencies will be able to utilize. Among the programs this research will support are the Global Nuclear Energy Partnership and the Next Generation Nuclear Plant.

There is a renaissance in nuclear energy occurring. Its underway already. The first big step in ATR playing a role in that renaissance is the designation of (ATR) being a national user facility and making it more accessible to industrial researchers, as well as university researchers, said John Grossenbacher, INL laboratory director.

The ATR also has been the source of valuable medical and industrial isotopes, such as cobalt-60 used in a medical device for precise treatment of otherwise inoperable vascular deformities and brain tumors.

I want to congratulate you all for what you have done, what youre doing and the contributions youll make both today and tomorrow, Grossenbacher concluded.

The test capabilities of ATR also are used by other customers.

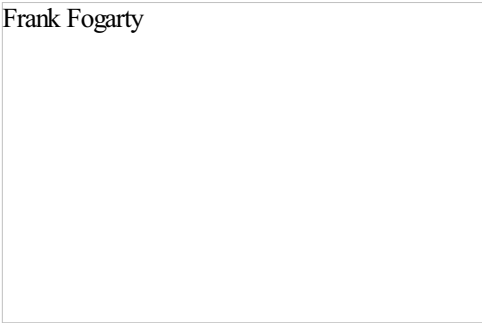
For instance, British Nuclear Group, Reactor Sites, United Kingdom, has used the ATR for irradiation/oxidation experiments to project life extension of graphite-moderated reactors.

The Japanese nuclear industry has used the ATR to irradiate steel specimens to test welding techniques the Japanese use to repair reactor vessels in pressurized water reactors.

Now, as a National Scientific User Facility, the ATR will become an even more valuable research tool for university programs, as well as for industry.

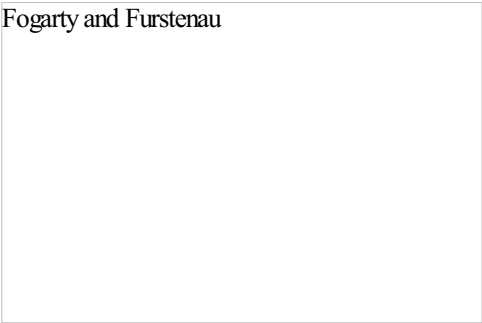
The ATR continues its longtime production of isotopes for medical and industrial uses. For instance, working with International Isotopes Inc., Idaho Falls, ATR is producing cobalt-60. One of cobalt-60's applications is in a medical device used for precise treatment of otherwise inoperable vascular deformities and brain tumors.

The ATR will play a key role in developing the next generation of clean, safe nuclear energy that must be a component of the United States' energy mix.



Retired ATR Program Manager Frank Fogarty commended workers.

General Contact:
John Walsh, (208) 526-8646,
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Fogarty spoke with DOE's Ray Furstenau during the celebration.